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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/516,956

12/03/2004

Takeshi Koyama

396.4449X00

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02/18/2009

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EXAMINER

WOOD, ELLEN S

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

02/18/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Advisory Action Before the Filing of an Appeal Brief</p>	<p>Application No. 10/516,956</p>	<p>Applicant(s) KOYAMA ET AL.</p>	
	<p>Examiner ELLEN S. WOOD</p>	<p>Art Unit 1794</p>	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 29 January 2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1, 5, 7-10, 12-13 and 21.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see below.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

/David R. Sample/
Supervisory Patent Examiner, Art Unit 1794

The applicant argues that unexpected results are obtained by an increase of the skeletal structure represented by formula (1) in the gas barrier layer when the amount is 45% or higher. The applicant uses example 10 to show that the epoxy resin cured product had 39.8% content of the skeletal structure represented by formula (1). To establish unexpected results over a claimed range, applicants should compare a sufficient number of tests both inside and outside the claimed range to show the criticality of the claimed range. In *re Hill*, 284 F.2d, 128 USPQ 197. The applicant provides an example where the coating solutions was varied not only in the amount of curing agent but also 50 parts by weight of epoxy resin having glycidyl ether moieties derived from bisphenol F was used instead of the epoxy resin having glycidyl amine moieties derived from m-xylylenediamine. There is no data to support that it was alone the decrease in amount of the skeletal structure represented by formula (1). The applicant is providing mere conclusions that the barrier layer had unexpected results of higher barrier properties when the skeletal structure represented by formula (1) in the gas barrier layer was in an amount of 45% or higher. The applicant does not provide that the differences in results are in fact unexpected and unobvious and of both statistical and practical significance. The amount of the skeletal structure represented by formula (1) used in Carblom is reduced to prevent discoloring of the bottles. Carblom discloses that maximizing the amount the polyamine reactant is generally desirable for the sake of maximizing barrier properties (col. 8 lines 39-41). It would be obvious to one of ordinary skill in the art that an increase in barrier properties would result from increasing the polyamine which is represented by formula (1). Also, the barrier properties of the barrier layer of Carblom are not effected with the reduce levels of polyamine and read on those claimed by applicant. Thus, a *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). See MPEP 2144.05.

The applicant argues that the ratio of active amine hydrogen to epoxy group is outside the scope of the blending ratio between the epoxy resin and epoxy resin-curing agent. It should be noted that increase in the ratio of active amine hydrogen to epoxy group are result effective variables. As the amount of polyamine reactant increases and there is not a sufficient number of epoxy groups there may not be enough crosslinking to yield a strong, moisture resistant, solvent resistant film. Also, the use of more epoxy can produce excessive crosslinking and a film becomes too brittle (Carblom col. 8 lines 29-50). Absent unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the ratio of active amine hydrogen to epoxy group since it has been held that where general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In *re Aller*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955). In the present invention one would have been motivated to optimize the ratio of active amine hydrogen to epoxy group in order to produce a film that has desired mechanical and barrier properties.